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ABSTRACT

This study examined the relationship between the changes introduced in a course syllabus for a course titled "Instructional Strategies" and the final grades obtained by freshman and sophomore students in three successive academic periods. A sample of 150 subjects was randomly selected from students enrolled in the course at the Pedagogical University of Caracas, Venezuela. The course syllabus experienced three changes in terms of specific objectives, contents, learning activities, instructional resources, and evaluation criteria. The findings of the study suggest that the changes introduced to the course syllabus did affect the final grade performance of students. It is concluded that more explicit course syllabi, in terms of number of objectives, content, instructional resources, and grading components, represent greater amounts of information that can be better processed in the learning situation. (12 references) (JDD)

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COURSE SYLLABI AND THEIR EFFECTS ON STUDENTS' FINAL GRADE PERFORMANCE

by

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ABSTRACT

This study examined the relationship between the changes introduced in a curriculum program (course syllabus) of Instructional Strategies and the final grades obtained by freshman and sophomore students in three successive academic periods (85-II, 86-I, 86-II). A sample of 150 subjects was randomly selected from a population of 2,001 individuals enrolled at the Pedagogical University of Caracas, Venezuela. The curriculum program (course syllabus) experienced three changes in terms of specific objectives, contents, learning activities, instructional resources, and evaluation criteria. To test the hypothesis, one-way ANOVA was used. The results supported the hypothesis that at least one population mean of final grades for the type of course syllabus was different from the rest with an alpha level .05. The type A course syllabus containing four units and 18 specific objectives was found to be different from type B and type C. A post hoc analysis was conducted and LSD procedure confirmed what pairs were involved. The conclusions determined that rational and objective selection of specific objectives and content matter do affect the final grade performance of students.

In higher education institutions curricular changes are more likely to occur in response to three forces, the form and content of teaching, the demanding students, and the incursion of new technology (Trent & Cohen, 1973). In organizing curricular innovations all formal and informal educational strategies in which a student engages should be considered. Earning credit hours toward a degree is the main student's interest. Warwick (1975) asserted that the curriculum effectiveness is directly related to students'needs, teachers'skills, and school infrastructure. Then, it seems to be clear that introducing curricular changes presuppose those who are teaching, those who are learners, and the physical structure in which changes are implemented.

Presently, there is a need for systematic ways to explore and improve college curriculum. Stark and Lowther (1988) refer that the influence of higher education over student rational growth is highly judged as skeptical by the public domain. More theoretical thinking rather than research-based proposals is what college curriculum seems to approach. In this vein, curriculum addresses two risky positions: first,

reclusion; and secondly, isolation from the world which it is supposed to serve.

On the basis of an extensive literature review, Stark and Lowther (1986) defined curriculum as an academic plan, after interviewing 89 faculty members in different types of colleges in order to complete a parallel model of course and program planning. This argument was undertaken in 1983 by a Venezuelan teacher college as initiating curricular transformations and changes. All academic departments introduced changes in their curriculum majors, and; of course, in all course syllabi. Curriculum was considered mainly as a plan. Faculty members conducted research studies regarding curriculum program comparisons. Among them, Hernandez (1983), with a sample of 32 randomly selected subjects, measured the variables attitude toward a Curriculum Techniques course and final grades, finding that both were correlated (r=-.375). In addition, Jimenez (1984) pondered the opinion of 285 students enrolled in a course of phonetic taught using two different methods, lab and regular class instruction. Sixty-nine percent of students supported the type A method (Lab) leading to the conclusion of the lab

method would be more appropriate to teach a course with similar features.

Gil (1986), using a follow-up design, evaluated the three type of curriculum programs of the course Instructional Strategies implemented during the curriculum changes at the Pedagogical University of Caracas. In comparing means, differences regarding to the elements contained in each program led to conclude that a well structured curriculum program would affect learning outcomes.

A large number of studies in college grade performance have been conducted. Using a sample of 25 courses, Chacon and Favio (1985) investigated course completion and achievement in college students reporting that course difficulty enhances both completion and pass rate. Tanner (1986), with a sample of 40 randomly selected junior-level elementary teacher preparation students, revealed that As and Bs were the most common final grades.

The student-professor interaction, unfortunately, is marked by a grade in most academic institutions. a grade, then, may constitute a bridge connecting what is taught and what is learned. The discussion involving

what is a grade would be extensive and even contradictory and conflictive among faculty members. Definitions of grade are abundant and coincident. Grades may be given to specific tests, papers, assignments, projects, readings, lab reports, attendance, class participation, oral examinations, etc. A grade tells student how she/he is doing in a course. Grades may have similar connotation even on different people. Usually, instructors give them, parents worry about them, peers disregard them, administrators devalue them, and students suffer them.

Harper & Hughey (1983) examined 1578 final grades using a discriminant analysis. Fifteen variables survived the F <1.00 criterion for entry allowing to predict that 34% of the grades could be explained in terms of instructor's habits and the substantial part of the grade 84% was the student's competence. Byar & Blew (1981) brought support to this fact investigating some education courses. However, Smith (1982) reported that there was a lack of academic rigor generally at undergraduate courses.

The most common measure, then, is the individual course grade and it seems perfectly reasonable to use

course grades as one measure of the acquisition of knowledge and skills. Based on this assumption and, since very little attention has been given to how changes on the curriculum structural program for a specific course may influence final grades, it was interesting to investigate the relationship between final grades and the type of curriculum changes introduced in a specific instrumental course at the Pedagogical University of Caracas, Venezuela.

The type of curriculum program, independent variable of this study, is defined as the structural matrix containing the description of the course Instructional Strategies. At the level of comprehension, it includes general and specific objectives, contents, learning activities, instructional resources, and evaluation criteria. This syllabus, usually associated with freshman and sophomore students, is divided into units which have several specific objectives interacting to achieve the terminal course objective. The structural matrix of the course syllabus is organized over a given period of time (a semester) and is specially arranged to serve as a teacher-student guideline. For this study three

types of Instructional Strategies course syllabi were considered. The type A was implemented to 1,001 students attending 85-II academic period. It represented the first version of the program and involved four units and 18 specific objectives.

The type B, second version of the Instructional Strategies course syllabus, attended by 580 students in 86-I academic period, and whose structural matrix contained four units and 14 specific objectives. The last version of the course syllabus, type C, with three units and 13 specific objectives, was offered in 86-II term to 438 students.

The dependent variable, final grade performance, measured by a 50-multiple choice items test whose weight represented 50% of all evaluative strategies of the course. Faculty members teaching it followed a similar class plan, equal grade components, and identical timing.

STUDY DESIGN AND MEASURES

Hypotheses

At least one population mean of final grades for the three types of curriculum syllabi of Instructional

Strategies course will differ from the rest. No differences, among all, was tested at .05 alpha level.

Population and Sample

The immediate population consisted of 2,019 teaching students enrolled at the Pedagogical University of Caracas, between 1983 and 1984. In the 1985-II academic period, 1,001 students attended 27 multiple sections of Instructional Strategies. 540 students, distributed in 17 multi-sections, attended the course in 1986-I term. Out of 2,019, 480 students were registered in 12 multi-sections of Instructional Strategies during 1986-II semester.

Students'age ranged between 18 and 30 years old. 65% were female and 35% male enrolled in 10 different teaching majors. In this population, 92.3% of subjects came from public school system and 91.4% proceeded from middle and middle-lower socioeconomic status (Institutional Research Report, 1983). The sampling procedure was designed to yield a random sample of approximately 50 students at each academic period. Final grades for these 150 students were obtained from the Record Office at the University.

Statistical Model

To test the null hypothesis, one-way analysis of variance (ANOVA) was used. The use of ANOVA required assuming that all observations be independent. This assumption was satisfied with the three independent groups (type of syllabi). In addition, the population from which the sample come from is assumed to be normally distributed. The effect of violating these assumption was minimized by the size of the group (N=150). In the case of homogeneity of variance, the sample sizes, among the type of syllabi, were equal. Therefore, the consequences of violating this assumption were also reduced. The results of homogeneity of variance tests supported that the three type of syllabi had the same variance (Cohrans $p = .640$ and Bartlett-Box $p = .646$).

FINDINGS

The descriptive statistic, size, means, and standard deviations, are given in Table 1. Results of the analysis of variance are shown in Table 2.

Table 1

Sample Size, Means and Standard Deviations of Final Grades in Three Types of Instructional Strategies Course Syllabi

Type	Size	Mean	S.D.
A	50	6.700	1.971
B	50	5.760	2.254
C	50	5.720	2.128

As it is observed, the type A program has the highest mean of the three groups (X=6.700). The type B and C respectively showed slightly differences between means. The final grades reached with the type A syllabus seemed to be more homogeneous (SD=1.971) as compared to other groups.

Table 2

Summary of ANOVA for Final Grade Performance in the Three Groups

Source	D.F.	MS	F	Fp
Between Groups	2	15.380	3.416	.03*
Within Groups	147	4.501		

* p < .05

The F ratio for these data was 3.416. An F critical value of 3.00 was located in the F table. F ratio, then, exceeded Fcv; therefore, the null hypothesis of no differences was rejected. Between groups and within

groups estimates of the population variance were independent. Between group estimate was larger than of Within group.

DISCUSSION

The null hypothesis was rejected at .05 alpha level ($p=.035$). Therefore, the operational hypothesis stating differences among the population means of final grade performances of at least one of the type of course syllabi, was accepted. Further post-hoc analysis (LSD) showed that the type A course syllabus was different from type B and C course syllabi. The pair of groups of the type A course syllabus, given to 1,001 students during the 85-II term, was different from the type of course syllabus implemented in 86-I and 86-II academic periods respectively. Also, students attending Type A syllabus scored higher than students on type B and C course syllabi. Additional differences were not detected.

The findings of the study suggest that the changes introduced to the curriculum program (course syllabus) used to teach Instructional Strategies, did affect the final grade performance of students being enrolled in

different teaching majors during consecutive academic periods at the Pedagogical University of Caracas, Venezuela. The type A course syllabus, whose structural matrix presented four units and 18 specific objectives, was found to be different from the rest. Thus, it can be argued that the first version planned to teach Instructional Strategies class was more likely to have a well balanced curriculum elements and grading components and a better impact in the student performance.

More explicit course syllabus in terms of number of objectives, content, instructional resources, and grading components represent greater information and instruction that are better captured and processed in the learning situation experienced by the student. Such was the case in this study in which the structural matrix of type B and C course syllabi reflected lack of variety of instructional ingredients. In curriculum, plan organization is a crucial phase. Once the content is selected and the learning experiences are decided, the structural configuration of a curriculum program is born. Conclusions, based on these results, however, must certainly be cautiously drawn because an

evaluation of the elements contained in each program is needed to know exactly what were its primary strengths and weaknesses. For instance, if one type is consistently found to be content-oriented to a greater extent than other curriculum elements, efforts to modify specific objectives and learning strategies might profitably be explored.

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